



IDAHO DEPARTMENT
OF HEALTH AND WELFARE

DIVISION OF
ENVIRONMENTAL QUALITY

1410 North Hilton, Boise, ID 83708-1255, (208) 373-0502

Philip E. Batt, Governor

February 20, 1998

CERTIFIED MAIL #P 875 705 145

Scott B. Sprague, P.E.
Kerr-McGee Chemical LLC
P.O. Box 478
Soda Springs, Idaho 83276

RE: Kerr-McGee Chemical LLC, P-980006
Tier II Operating Permit Modification (Catalyst Hammer Mill)

Dear Mr. Sprague:

On February 2, 1998, the Idaho Department of Health and Welfare, Division of Environmental Quality (DEQ) received a Permit to Construct application from Kerr-McGee Chemical LLC (Kerr-McGee) for modifications to their Tier II operating permit (OP) for the catalyst hammer mill. The application requested unlimited operating hours and a corresponding increased emission limit for the hammer mill.

Based on the review of the application and all applicable state and federal rules and regulations, DEQ finds that this project meets the provisions of IDAPA 16.01.01.200 (Rules for the Control of Air Pollution in Idaho). Enclosed is the modified section of OP #0420-0002-002 which pertains to the catalyst hammer mill. This section replaces pages 19 through 22 of the OP. Also enclosed are updated general provisions for the OP. These general provisions replace page 54 of the OP. Please insert these pages into the OP and remove the old pages with the corresponding page numbers. Also note that in order to maintain the integrity of the OP, the source testing requirements remain in this modified section. This does not require additional testing so long as the requirements have been fulfilled previously.

This OP does not release the Permittee from compliance with all other applicable federal, state, local, or tribal laws, regulations, or ordinances, including applicable requirements due to collocation of these facilities.

You, as well as any other entity, may have the right to appeal this final agency action pursuant to the Idaho Department of Health and Welfare Rules, Title 5, Chapter 3, "Rules Governing Contested Case Proceedings and Declaratory Rulings," by filing a petition with the Hearings Coordinator, Department of Health and Welfare, Administrative Procedures Section, 450 West State Street, 10th Floor, Boise, Idaho 83720-5450, within thirty-five (35) days of the date of this decision.

If you have any questions regarding the terms or conditions of the enclosed permit, please contact Susan J. Richards, Chief, Air Quality Permitting Bureau, at (208) 373-0502.

Sincerely,

Orville D. Green
Assistant Administrator
Air and Hazardous Waste

ODG\SJP-PM:jrx...permit\k-mcgee\k-mcgee.COV

Enclosures

cc: Pocatello RO

Source File (0420-0002-002)

COF

✓ P. R. R. R.

AIR POLLUTION OPERATING PERMIT	PERMIT NUMBER
Permittee AND LOCATION Kerr-McGee Chemical Corporation Operating Permit Including the Plant Expansion Soda Springs, Idaho	<div style="border: 1px solid black; display: inline-block; padding: 2px 5px;">0420</div> - <div style="border: 1px solid black; display: inline-block; padding: 2px 5px;">0002</div> - <div style="border: 1px solid black; display: inline-block; padding: 2px 5px;">002</div>
The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.	
SOURCE Catalyst Hammer Mill and Associated Handling System	

1. SOURCE DESCRIPTION

1.1 Process Description

Catalyst and other vanadium bearing materials are ground and transported in a dedicated circuit. The catalyst is ground in a hammer mill then pneumatically transported to a storage bin. From the storage bin, the ground catalyst is transferred to the roaster feed blending screw which feeds the roasters.

1.2 Controls

Emissions from the catalyst hammer mill and associated handling equipment shall be controlled using a fabric filter designed for a flowrate of 3000 ACFM; an air to cloth ratio of 2.95; and a grain loading of 0.03 gr/dscf.

1.3 Stack Specification


The catalyst fabric filter emission point shall be fifteen (15) feet high with a 1.0 foot diameter.

2. EMISSION LIMITS

2.1 TSP or PM-10 emissions from the catalyst fabric filter stack shall not exceed 0.02 gr/dscf, 0.42 lb/hr, or 1.84 T/y. These emission limits are given in Appendix A.

2.2 Visible emissions from the catalyst fabric filter stack shall not exceed ten percent (10%) opacity for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period as determined using DEQ's "Procedures Manual for Air Pollution Control".

2.3 Fugitive emissions shall not be visible outside the building which houses this process as determined by U.S. EPA Reference Method 22.

 ASSISTANT ADMINISTRATOR DIVISION OF ENVIRONMENTAL QUALITY	ISSUED <u>FEBRUARY 20, 1998</u> EXPIRES <u>FEBRUARY 20, 2003</u>
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Permittee AND LOCATION			
Kerr-McGee Chemical Corporation Operating Permit Including the Plant Expansion Soda Springs, Idaho		0420 - 0002 - 002	
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SOURCE			
Catalyst Hammer Mill and Associated Handling System			

3. MONITORING REQUIREMENTS

- 3.1 The Permittee shall install, calibrate, maintain, and operate monitoring devices which continuously measure the change in pressure of the gas stream across the catalyst-fabric filter.
- 3.2 The Permittee shall conduct a performance test to measure particulate emissions from the catalyst fabric filter stack within four (4) years after the issuance date of this permit. Emission testing methods shall be in accordance with U.S. EPA Reference Method 5 and DEQ's "Procedures Manual for Air Pollution Control" or DEQ-approved alternative. The following shall be measured and recorded during the performance tests:
- 3.2.1 The process weight rate (T/hr) using a method approved by DEQ;
 - 3.2.2 Visible emissions from the catalyst fabric filter stack as specified in DEQ's "Procedures Manual for Air Pollution Control"; and
 - 3.2.3 The change in pressure of the gas stream across the fabric filter.

4. OPERATING REQUIREMENTS

- 4.1 The average hourly production rate for the catalyst hammer mill shall not exceed 1.5 T/hr based on the total quantity of catalyst processed per day divided by the actual operating hours the process operated each day. The monthly production rate shall not exceed 1,095 T/m based on a twelve (12) month rolling average. For the first year after the issuance date of this permit, annual production rate shall not exceed 13,140 T/yr.

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	EXPIRES <u>FEBRUARY 20, 2003</u>

AIR POLLUTION OPERATING PERMIT

PERMIT NUMBER

Permittee AND LOCATION

Kerr-McGee Chemical Corporation
Operating Permit Including the Plant Expansion
Soda Springs, Idaho

0420 - 0002 - 002

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

SOURCE

Catalyst Hammer Mill and Associated Handling System

- 4.2 Maintenance of the fabric filter system shall be performed if the visible emissions from the catalyst fabric filter stack exceed five percent (5%) opacity for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period and as determined using DEQ's "Procedures Manual for Air Pollution Control".
- 4.3 Maintenance of the fabric filter and/or the fugitive emission capture system shall be performed if any visible emissions are observed from the building housing this process.
- 4.4 The hours of operation and daily production rate shall be recorded daily.
- 4.5 The Permittee shall develop a maintenance plan and schedule for the fabric filter to assure DEQ that this air pollution control equipment shall be operated optimally.
- 4.6 The Permittee shall maintain on-site replacement parts for the fabric filter(s) to assure DEQ that unexpected breakdowns of this control equipment under normal circumstances will be repaired as quickly as possible.

5. REPORTING REQUIREMENTS

- 5.1 The performance test data and results as required in Section 3.2 of this permit shall be reported to DEQ within thirty (30) days of the test.
- 5.2 The Permittee shall submit to DEQ the maintenance plan and schedule for the fabric filter within 180 days after the issuance date of this permit.

[Signature]
ASSISTANT ADMINISTRATOR *for E.D.E.*
DIVISION OF ENVIRONMENTAL QUALITY

ISSUED FEBRUARY 20, 1998EXPIRES FEBRUARY 20, 2003

AIR POLLUTION OPERATING PERMIT

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Permittee AND LOCATION

Kerr-McGee Chemical Corporation
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Catalyst Hammer Mill and Associated Handling System

5.3 The Permittee shall submit the following information to DEQ in an annual report within forty-five (45) days following the end of the fourth calendar quarter. Data for the most recent two (2) year period shall be made available for inspection at the plant site anytime:

- 5.3.1 The quantity of catalyst processed by the hammer mill each month.
- 5.3.2 The number of hours the catalyst hammer mill operated each month.
- 5.3.3 The days the average hourly catalyst production exceeded permitted limitations. The daily catalyst production rate and hours of operation shall be reported for these periods.
- 5.3.4 A maintenance report on corrective actions taken when the catalyst hammer mill fabric filter stack opacity exceeds five percent (5%) as required in Section 4.2 of this permit, or when fugitive emissions become visible outside the building as required in Section 4.3.

[Signature]
 ASSISTANT ADMINISTRATOR *for EDC*
 DIVISION OF ENVIRONMENTAL QUALITY

ISSUED FEBRUARY 20, 1998

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SOURCE

Catalyst Hammer Mill and Associated Handling System

APPENDIX A

KERR-MCGEE CHEMICAL CORPORATION - SODA SPRINGS

POINT SOURCE TSP AND PM-10 EMISSION LIMITS

Source Description	TSP			PM-10		
	lb/h	T/y	Other	lb/h	T/y	Other
#1 Natural Gas Fired Boiler Stack	0.01	0.044	N/A	0.01	0.044	N/A
#2 Natural Gas Fired Boiler Stack	0.01	0.044	N/A	0.01	0.044	N/A
Crusher and Dryer	0.773	2.55	0.0515 lb/ton	0.773	2.55	0.0515 lb/ton
Fep Ballmill Baghouse Stack	0.575	1.38	0.0557 lb/ton	0.575	1.38	0.0557 lb/ton
Limestone Hammermill Fabric Filter Stack	0.697	1.38	0.0557 lb/ton	0.697	1.38	0.0557 lb/ton
Limestone Ballmill Fabric Filter Stack	0.697	1.38	0.0557 lb/ton	0.697	1.38	0.0557 lb/ton
Vent Catalyst Impactor Fabric Filter Stack	0.42	1.84	0.02 gr/dscf & 0.525 lb/t	0.42	1.84	0.02 gr/dscf & 0.525 lb/t
Roaster Feed Fabric Filter Stack	0.65	2.85	0.02 gr/dscf & 0.089 lb/t	0.65	2.85	0.02 gr/dscf & 0.089 lb/t
No. 1 Roaster Scrubber Stack	4.92	21.55	PWR	4.92	21.55	PWR
No. 2 Roaster Scrubber Stack	4.56	19.97	PWR	4.56	19.97	PWR
No. 3 Roaster Scrubber Stack	7.00	30.66	PWR	7.00	30.66	PWR
Ammonia Scrubber Stack	0.984	4.31		0.984	4.31	
AMV/K/AN Dryer Fabric Filter Stack	0.36	0.94	0.02 gr/dscf & 3.00 lb/t	0.36	0.94	0.02 gr/dscf & 3.00 lb/t

<p style="text-align: center;">AIR POLLUTION OPERATING PERMIT</p> <p style="text-align: center;">Permittee AND LOCATION</p> <p>Kerr-McGee Chemical Corporation Operating Permit Including the Plant Expansion Soda Springs, Idaho</p> <p>The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.</p>	<p>PERMIT NUMBER</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> 0420 - 0002 - 002 </div>
<p>SOURCE</p> <p>Catalyst Hammer Mill and Associated Handling System</p>	

Source Description	TSP			PM-10		
	lb/h	T/y	Other	lb/h	T/y	Other
Salt Storage Bin Fabric Filter Vent	0.034	0.005	N/A	0.014	0.002	N/A
Soda Ash Storage Bin Fabric Filter Vent	0.053	0.009	N/A	0.025	0.004	N/A
Ammonium Sulfate Storage Bin Fabric Filter Vent	0.049	0.007	N/A	0.022	0.003	N/A
Potassium Chloride Storage Bin Vent	0.053	5x10 ⁻⁴	N/A	0.025	2x10 ⁻⁴	N/A

OPERATING PERMIT GENERAL PROVISIONS

- A. All emissions authorized herein shall be consistent with the terms and conditions of this permit. The emission of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code 39-101 et. seq.
- B. The Permittee shall at all times (except as provided in the Rules for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable laws for the control of air pollution.
- C. The Permittee shall allow the Director, and/or his authorized representative(s), upon the presentation of credentials:
 - 1) To enter upon the Permittee's premises where an emission source is located, or in which any records are required to be kept under the terms and conditions of this permit; and
 - 2) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and to require stack emission testing (i.e., performance tests) in conformance with state approved or accepted EPA procedures when deemed appropriate by the Director.
- D. Except for data determined to be confidential under Section 39-111, Idaho Code, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the appropriate regional office of the Division of Environmental Quality.
- E. Nothing in this permit is intended to relieve or exempt the Permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.
- F. In the event of any change in control or ownership of source(s) from which the authorized emissions emanate, the Permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Director.
- G. This permit shall be renewable on the expiration date, provided the Permittee submits any and all information necessary for the Director to determine the amount and type of air pollutants emitted from the equipment for which this permit is granted. Failure to submit such information within sixty (60) days after receipt of the Director's request shall cause the permit to be voided.
- H. The Director may require the Permittee to develop a list of Operation and Maintenance Procedures which must be approved by DEQ. Such list of procedures shall become a part of this permit by reference, and the Permittee shall adhere to all of the operation and maintenance procedures contained therein.

- I. The Permittee shall provide DEQ a minimum of thirty (30) days notice prior to the scheduled date of any performance test required pursuant to this permit. Such testing must strictly adhere to the procedures outlined in DEQ's Procedures Manual for Air Pollution Control, and will not be conducted on weekends or state holidays, unless the Permittee obtains prior DEQ approval. Testing procedures and specific time limitations may be modified by DEQ by prior negotiation if conditions warrant adjustment.

The Permittee shall promptly notify DEQ of any change in the testing schedule and shall provide at least five (5) working days notice prior to conducting any rescheduled test, unless DEQ approves a shorter advanced notice period. Any records or data generated as a result of such performance tests shall be made available to DEQ upon request.

The performance tests will be performed at the maximum production rate unless otherwise is specifically stated elsewhere in this Operating Permit. If this maximum rate is not achieved during testing, the allowable production rate will be limited to the production rate attained during testing.

- J. The provisions of this permit are severable; and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.
- K. Operation information shall include daily and annual hours of operation and process throughput rate(s) as applied to development of permit conditions.